REMARKS

Applicant has amended the claims to more clearly recite the claimed invention. The amendments are supported in the as-filed specification, *e.g.*, at page 9, lines 18-20; page 60, line 21; page 70, lines 1-23; and page 16, line 5. No new matter has been added as a result of any of these amendments.

Applicant respectfully traverses the 35 U.S.C. § 103(a) rejection of claims 1-38 over Keenan (U.S. 6,584,413) in view of Lundstedt (U.S. 7,194,369).

The Office Action cites column 1, lines 54 - column 2, line 38 of Keenan to disclose a pass/fail judgment device which takes the form of pass/fail objects as a pass/fail judgment factor comprising a discriminant function computing unit for computing discriminant functions which give variables used to separate the frequency distribution of pass category and fail category from a plurality of pieces of parameter information which makes pass/fail judgment factors and pass/fail judgment result information. Keenan, however, measures only one distribution, *i.e.*, either a pure substance or an impure substance, and the distribution is classified based on substance purity. See Keenan, col. 15, lines 33-45. Keenan does not disclose or suggest a pass category and a fail category, separated by the discriminant function with respect to a plurality of pieces of parameter information, as recited in the present claims.

The Office Action cites col. 9, lines 45 - col. 10, line 34, and col. 10, lines 38-46 of Keenan, as disclosing a threshold determining unit giving a specific distribution probability weight based on the center of distribution and distribution parameters. Keenan, however, discloses a Poisson distribution, which is a fixed distribution,

determined by a standard deviation of a square of the mean. Keenan does not disclose or suggest various distributions, as recited in the present claims.

Keenan, at col. 15, lines 33-45 discloses a threshold for separating the pure substance from the impure substance or for separating correct signals and noise signals. Keenan, however, neither discloses nor suggests a threshold for judging calculations belonging to a fail category or a pass category, as recited in the claims.

Keenan discloses at col. 5, lines 55-65, that parameters that express the condition of the signals are measured as data. The parameters are the value of the raw measured data. Keenan, however, neither discloses nor suggests that parameters are input to the discriminant function for detecting defective units in product inspection, as recited in the claims.

Keenan discloses at col. 13, lines 15-32, and at col. 16, lines 15-23, that the measured data is the normal distribution. Keenan, however, neither discloses nor suggests that after detecting defective units, in product inspection, the pass category and the fail category obtained by the process sets forth, *e.g.*, in claim 1, are the normal distribution.

Keenan discloses at col. 26, lines 62 - col. 27, line 34 that data was separated. Keenan, however, neither discloses nor suggests that the parameters are used for the discriminant function, or detecting defective units in product inspection, and the pass category and the fail category, that are obtained by the process set forth, *e.g.*, in claim 1, and the parameters are used for calculating by the discriminant function, as set forth in the claims.

Keenan discloses at col. 9, lines 45 and col. 10, line 34 that measurement of an x-ray is approximated by a Poisson distribution. As noted above, in a Poisson distribution, the standard deviation is an unambiguously fixed value based on the square root of a mean value. Keenan neither discloses nor suggests setting the threshold to separate into two frequency distributions for the pass category and the fail category. With the Poisson distribution in Keenan, it is impossible to change the standard deviation, because the one mean value has the only one standard deviation. Keenan does not disclose, and cannot suggest therefore, "wherein the overcontrol and flowout are separated having the normal distribution, and wherein the overcontrol and flowout are judged based on the data of the normal distribution," as recited, *e.g.*, in each of the independent claims.

Lundstedt does not disclose the claimed features absent from Keenan. Lundstedt discloses calibration models used for compensating for variation in an effectively comprehensive set of measurement conditions and secondary material characteristics. Lundstedt, however, neither discloses nor suggests a pass/fail judgment device which takes the form of pass/fail objects as a pass/fail judgment factor, used for detecting defective units in product inspection. Lundstedt also neither discloses nor suggests separating a pass category and a fail category, that is made by a discriminant function.

Lundstedt discloses at col. 10, lines 1-45 an outlier as an invalid predicted value (col. 10, line 2), which may be caused by an invalid measurement (col. 10, line 22). The outlier, therefore, is a condition of abnormal measured data. It is not the same as,

and does not suggest, flowout, as that term is used in the claims. Flowout is a category of the frequency distribution, determined by the discriminant function.

Lundstedt further provides no disclosure or suggestion of a normal distribution for separating overcontrol and flowout.

Combining Keenan and Lundstedt, therefore, does not suggest all of the elements recited in the claims, and provides no *prima facie* case of obviousness. See *In re Rouffet*, 149 F.3d 1350 (Fed. Cir. 1998). See also M.P.E.P. § 2143.

In view of the above amendments and remarks, Applicant respectfully requests reconsideration and allowance of the pending claims.

Please grant any extension of time to the extent required to enter this response and charge any fees not accounted for above, to our Deposit Account No. 06-0916.

Respectfully submitted,

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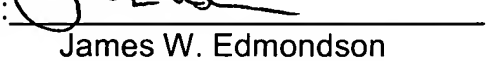
By: 

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